

ABSTRACT

A multihop network and nodes are described herein that implement a reactive routing protocol that enables resources of the multihop network to be continuously adapted in a distributed/opportunistic manner in response to a topology change within the multihop network so as to optimize the performance of a connection between a source node and a destination node. The types of resources that can be adapted include for example: (1) a route; (2) a channel; and/or (3) physical layer parameters. And, the different types of topology changes that can occur include for example: (1) movement of a node; (2) quality variations in a channel between the source node and the destination node; (3) changes in traffic patterns in the multihop network; (4) changes in transmit patterns (e.g., power, beamforming direction) in the multihop network; and (5) changes in resource allocations in the multihop network.